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UNCLASSIFIED

PROCESSING DATE--09OCT70

TITLE--CLASSIFICATION OF HYPOFERRIC ANEMIAS -U-

AUTHOR--(05)--RYABOV, S.I., RUDAKOVA, T.L., SENCHIK, R.V., MASKEYEVA, ZH.M.,
SHOSTKA, G.D.

COUNTRY OF INFO--USSR

SOURCE--TERAPEVTICHESKIY ARKHIV, 1970, VOL 42, NR 4, PP 101-105

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ANEMIA, PEDIATRICS, MEDULLA, DIGESTIVE SYSTEM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--1990/0943

STEP NO--UR/0504/70/042/004/0101/0105

CIRC ACCESSION NO--AP0109100

UNCLASSIFIED

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PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0109100

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE ARTICLE PRESENTS THE DATA CONCERNING THE EXAMINATION OF 200 CHILDREN WITH DIFFERENT FORMS OF HYPOFERRIC ANEMIAS. ON THE BASIS OF THE INVESTIGATIONS CONDUCTED THE AUTHORS SUGGEST TO SINGLE OUT 10 FORMS OF HYPOFERRIC ANEMIA TAKING INTO CONSIDERATION THE CONDITION OF MEDULLARY HEMOPOISES AND THE RESULTS OF THE STUDY OF THE FUNCTIONAL ACTIVITY OF THE CELLS OF THE ERYTHROID SERIES. THE RESULTS OF THE MORPHOLOGICAL AND FUNCTIONAL INVESTIGATION OF THE STOMACH ARE OF GREAT HELP.

FACILITY: KAFEDRA VNUTRENNIKH

BOLEZNEY STOMATOLOGICHESKOGO FAKUL'TETA I LENINGRAD MEDITSINSKOGO INSTITUTA IM. I. P. PAVLEVA NA BAZE BOL'NITSY NO 2 ZHDANOVSKOGO RAYONA.

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USSR

UDC 616.988.25-022.395.42.036.2(571.62)

VERETA, L. A., OBUKHOV, G. D., KOVALEVA, Ye. I., SKVORTSOVA, T. M.,
MOGILEV, V. Ye. VOROB'YEVA, R. N., NIKOLAYEVA, S. P., KUDAKOVA, T. M., and
ROSLYAKOV, G. Ye., Khabarovsk Scientific Research Institute of Epidemiology and
Microbiology, Khabarovsk

"Landscape-Epidemiological Subdivision of the Amur Territory With Respect to
Tick-Borne Encephalitis"

Moscow, Meditsinskaya Parazitologiya i Parazitarnyye Bolozni, Vol 42, No 1,
Jan/Feb 73, pp 28-32

Abstract: An evaluation of the danger of human infection with tick-borne
encephalitis in territorial subdivisions of the Amur region differing with
respect to natural characteristics has been carried out on the basis of a num-
ber of factors, principally the local density of Ixodid ticks. The index of
probability of infection (a product of the ratio of persons who have visited
forests by the ratio of those who observed the attachment of ticks by the
ratio of ticks infected with the virus of the disease) based on data collected
in 1969-71 was used as a criterion. Regions with a high incidence of the dis-
ease were located in the zone of coniferous-wide-leaved forests, those with a
moderate incidence in the subzone of the southern tayga and in agriculturally
developed areas in the zone of coniferous-wide-leaved forests, and those with
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USSR

VERETA, I. A., et al., Meditsinskaya Parazitologiya i Parazitarnyye Bolezni,
Vol 42, No 1, Jan/Feb 73, pp 28-32

a low incidence in the subzone of the middle tayga. Acute forms of the disease occurred both in regions with a high and a low incidence. The ratio of focal (meningoencephalitic) forms and the index of lethality, which corresponded to this ratio, showed some tendency of increasing from the south to the north.

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UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

242505 PHASE DISCRIMINATOR. The input voltage (U_{bx}) is compared with a standard voltage (U_{cm}). The resultant phase of the output voltage from the transformer (4) will depend on the relative amplitudes of the applied voltages. This voltage is amplified (9) and compared by a discriminator (10) with a unity-power signal from a generator (8). The generator (11) and the

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transformer (7) provide a bias. Pulses on the output appear only when two compared voltages are not equal. The absence of pulses signifies that the input voltage has the same amplitude as the standard voltage.

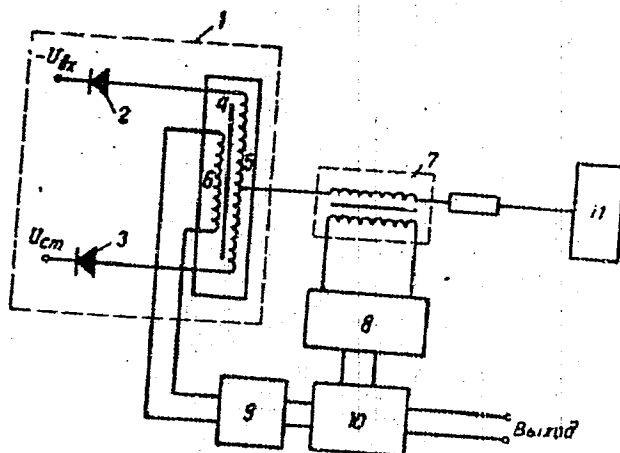
2.10.67 as 1186946/18-24. A.M.ZHAVRID & A.V. IYDAKOVSKY
(23.9.69) Bul 15/25.4.69. Class 42m. Int.Cl. G 06.

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Plant Pathology

3

USSR

UDC 633+632.938

SMIRNOVA, L. A., ANPILOGOVA, L. K., SOLOV'YEVA, A. I. (Deceased), RUDANOVSKAYA, Ye. A., RASSADINA, Ye. G., CHUMAKOV, A. Ye., and MOSTOVOY, V. A., All-Union Scientific Institute of Plant Protection, Leningrad, North Caucasian Scientific Research Institute of Plant Pathology, Krasnodar, and Central Asian Scientific Research Institute of Plant Pathology, Tashkentskaya Oblast

"Face Formation in *Puccinia graminis* Pers. f. sp. *tritici* in the USSR"

Leningrad, Mikologiya i Fitopatologiya, No 6, 1971, pp 494-499

Abstract: Besides discussing the current status of the problem of the race composition of stem rust of wheat, the article synthesizes the latest data embodied in reports sent to the journal Mikologiya i Fitopatologiya for publication. More than 100 races are now known, many discovered in the last 10 years. During this time the main races of *P. graminis* were fairly stable, with changes occurring only in their quantitative correlations in different years and geographic zones. Despite their great variety, only a few are found in almost all zones, i.e., 11, 17, 21, and 34. The sexual process, heterokaryosis, and mutations play a major role in the origin of new races of the agent of stem rust of wheat. The factor most responsible for the formation of new virulent races is the presence of resistant wheat varieties grown for a long time over large areas.

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USSR

UDC 621.371.3.029.7

BISYARIN, V. P., BISIYARINA, I. P., RUDASH, V. K., SOKOLOV, A. V.

"On the Problem of Attenuation of Laser Emission on Wavelengths of 10.6 and 0.63 μ in Atmospheric Precipitation"

Moscow, Radiotekhnika i Elektronika, Vol 16, No 10, Oct 71, pp 1765-1769

Abstract: The paper presents the results of simultaneous measurements of coefficients of attenuation of laser emission on wavelengths of 10.6 and 0.63 μ in snow, rain and drizzle which were made on a transmission path of 1.36 km in length. It is shown that attenuation on 10.6 μ exceeds that on 0.63 μ by an average factor of 1.4 in snow, and by an average factor of 1.2 in drizzle. In the case of rain, experimental relations on both wavelengths for the coefficients of attenuation as functions of the intensity of the rain are compared with the relations calculated by Mie theory for the size distribution of the raindrops in accordance with the data of Best and Polyakova. It is shown that the attenuation on 10.6 μ is greater than on 0.63 μ in high-intensity rains. The authors thank M. A. Kolosov and Ye. V. Sukhonin for constructive discussion of the results of the work. Seven figures, bibliography of six titles.

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1/2 007

UNCLASSIFIED

PROCESSING DATE--09OCT70

TITLE--ADDITION OF A GRIGNARD REAGENT TO THE DOUBLE BOND OF CYCLOPROPENE
HYDROCARBONS -U-

AUTHOR--(03)--LUKINA, M.YU., RUDASHEVSKAYA, Y.YU., NESMEYANOVA, O.A.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSSR 1970, 190(5), 1109-12

DATE PUBLISHED--70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--GRIGNARD REAGENT, PROPYLENE, CYCLIC GROUP, CARBOXYLIC ACID,
NMR SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--1992/2007

STEP NO--UR/0020/70/190/005/1109/1112

CIRC ACCESSION NO--AT0112963

UNCLASSIFIED

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UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AT0112963

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. REACTION OF RMGX, WHERE R WAS SELECTED FROM ME, ET, PR AND BU AND X FROM BR OR I, WITH 1,3,3,TRIMETHYLCYCLOPROPENE (I) OR 1,METHYLCYCLOPROPENE (II) WAS RUN WITH 10-15PERCENT EXCESS OF THE HYDROCARBON AT SIMILAR TO 0DEGREES OVERNIGHT IN INERT ATM., AFTER WHICH THE EFFLUENT GAS WAS IDENTIFIED (THIS AMOUNTED TO 1-4PERCENT CH SUB4-C SUB4 H SUB10, RESP.) AND THE REACTION MIXT. POURED ON DRY ICE AND ACIDIFIED TO GIVE THE RESP. CARBOXYLIC ACIDS, WHICH WERE CHARACTERIZED BY THEIR NMR SPECTRA EITHER DIRECTLY OR AS ME ESTERS. NO CYCLOPROPENECARBOXYLIC ACIDS WERE DETECTED IN ANY OF THE EXPTS. I AND MEMGI GAVE 83PERCENT 2,2,3,3,TETRAMETHYLCYCLOPROPANE,1,CARBOXYLIC ACID, M. 117-18DEGREES (HYDROLYSIS OF THE REACTION MIXT. GAVE 1,1,2,2,TETRAMETHYLCYCLOPROPANE); I AND ETMGBR GAVE 40PERCENT CIS,2,2,3,TRIMETHYL,3,ETHYLCYCLOPROPANE,1,CARBOXYLIC ACID, M. 80-10DEGREES; II AND RMGBR GAVE CIS,2,METHYL,2,(R,SUBSTITUTED)CYCLOPROPANE,1,CARBOXYLIC ACID: R EQUALS ET, 78PERCENT, B SUB12 106-7DEGREES, N PRIME20 SUBD 1.4468; R EQUALS PR, 19.5PERCENT, B SUB7 108-10DEGREES, 1.4489; BU, 36.5PERCENT, B SUB26 156-8DEGREES, 1.4485. THE GEMINAL POSITION OF THE TWO ALKYL GROUPS IN REACTIONS OF II WAS CONFIRMED BY THE NMR SPECTRA. THUS THE MAIN DIRECTION OF THE REACTION IS CIS ADDN. OF RMGX TO THE DOUBLE BOND WITH THE ALKYL GROUP GOING TO THE C ATOM OF CYCLOPROPENE WHICH IS SUBSTITUTED, WHILE MG GOES TO THE UNSUBSTITUTED C ATOM OF THE RING. ONLY 1-4PERCENT OF THE REACTION PROCEEDS VIA REPLACEMENT OF ACTIVE H. FACILITY: INST. ORG. KHIM. IM. ZELINSKOGO, MOSCOW, USSR.

UNCLASSIFIED

Phytology

USSR

UDC 63:551.509.6

SHEVELUKHA, V. S., Candidate of Agricultural Sciences, RUDASHKO, A. F.,
KRYSHNEV, I. I., and KOVALEV, V. M., Belorussian Agricultural Academy

"An Artificial Climate Chamber"

Moscow, Vestnik Sel'skokhozyaystvennoy Nauki, No 11, Nov 70, pp 131-135

Abstract: An artificial climate chamber has been designed which provides for programed control of the temperature, humidity, and intensity and duration of artificial light in experiments concerned with the physiology of plants and plant growth. The outer frame is lined with a double layer of insulating material. The inner dimensions (length 2,600 m, width 960 m, height 1,590 m) are ample to accommodate simultaneously 18 to 24 pots with plants, 2 to 4 mechanical auxanographs, and a variety of sensors and recording devices. There are 3 interconnected compartments, two of which contain the plants while the third holds a ventilator and condenser. In the center of the chamber are an electric heater, humidifier, temperature and humidity sensors, etc. The chamber has been used mainly to study plant growth as a function of time and to determine the reasons for the "bottlenecks" in plant growth arising from external and internal factors. The results of these studies are briefly described.

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Thermodynamics

USSR

UDC 532.132

DIKINA, L. S., YESEL'SON, B. N., NOVIKOV, P. S., RUDAVSKIY, E. Ya., Physico-technical Institute of Low Temperatures, Academy of Sciences of the UkrSSR, Khar'kov

"Dispersion of Heat Waves in He-II With a Damped Normal Component"

Kiev, Ukrainskiy Fizicheskiy Zhurnal, Vol 17, No 12, Dec 72, pp 1989-1996

Abstract: The authors study the velocity of heat waves in narrow channels filled with superfluid helium. A carbon film was used as the radiator, and a thin antimony-doped germanium single crystal acted as the receiver. The heat waves propagated in narrow channels formed by fine glass filaments. The measurements were made by the pulse-phase method in the substitute $1.4^{\circ}\text{K}-T_{\lambda}$ temperature interval at radiation frequencies of 0.6, 2.0, and 3.0 kHz. It is shown that as the frequencies decrease with increasing depth of penetration of the viscous wave there is an increase in damping of the normal component and, hence, an increase in the degree of dispersion of the heat waves. The variation of the heat wave velocity in the temperature and frequency agrees satisfactorily with theoretical predictions if the mean effective dimension of the channels is taken as the normalizing parameter.

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USSR

UDC 632.954

RUDAVSKIY, V. G., KUCHEROVA, M. N., SHIRANKOV, D. F., and MAKOVETSKIY, P. S.
Ukrainian Agricultural Academy

"Herbicidal Activity of Some Halocarboxylic Acid Derivatives (Brief Communication)"

Moscow, Khimiya v Sel'skom Khozyaystve, Vol 9, No 6, 1971, p 53

Abstract: The authors prepared some halocarboxylic acid derivatives and studied their herbicidal activity under hothouse conditions. The herbicidal activity of the compounds are graded visually according to a 10-point system (0: no inhibition; 1-2: very weak inhibition; 3-4: weak inhibition; 5: medium inhibition; 6-7: strong inhibition; 8-9: very strong inhibition; 10: total plant destruction). The article tabulates the results.

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USSR

UDC 632.95

BABIN, Ye. P., SKAVINSKIY, Ya. P., ANDRUKHOV, M. A., SEDLOVA, L. N.,
LITOSHENKO, N. A., and RUDAVSKIY, V. P.

"Chlorination of Diphenyl Ether and Its Derivatives"

Khim. tekhnologiya. Nauch.-proizv. sb. (Chemical Technology. Science-
Production Collection), No 3 (69), 1973, pp 48-49 (from RZh-Khimiya, No 22,
25 Nov 73, Abstract No 22N571 by D. Z. Levin)

Translation: Sulfides of metals with variable valence or mixtures of Sb_2S_5 and I_2 are used as a catalyst to chlorinate Ph_2O and $(MeC_6H_4)_2O$. Example. Ph_2O and 0.3% Sb_2S_5 are loaded into a reactor and Cl_2 is supplied at 70-800 for 4 hours at the rate of 30 g/hour. Tetrachlorodiphenyloxyde is obtained, boiling point 155-70/5. Heptachlorodiphenyloxyde, FeS , 111-3 are obtained in a similar fashion (the substance, catalyst, and boiling point in $^{\circ}C$ are given); octachloro-4, 4'-ditolyl ether, FeS , 192-4 (ethyl alcohol); w, w, w, w', w', w' -hexachloro-ditolyl oxide, $FeCl_5$, -; w, w, w, w', w', w' -hexachloro-2, 2'-dichloroditolyl ether, Sb_2S_5 , 300 (decomposition); trichloro-4, 4'-dicarboxydiphenyloxyde, -, 259-61; pentachloro-4, 4'-dicarboxydiphenyloxyde, $I_2 + H_2SO_4$, 192-3; octachloro-4, 4'-dicarboxydiphenyloxyde, $H_2SO_3 + I_2$, 268-70. These chloro derivatives are used as synergistic additives in herbicides, insecticides, and nematocides.

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USSR

UDC 632.95

RUDAVSKIY, V. P. and LITOSHENKO, N. A.

"Tetrachloro Anhydride Derivatives of bis-Acylamidophosphates"

Khim. tekhnologiya. Nauch.-proizv. sb. (Chemical Technology. Science-Production Collection), No 3(69), 1973, pp 55-56 (from RZh-Khimiya, No 22, 25 Nov 73, Abstract No 22N508 by S. Ye. Lyubarskaya)

Translation: A description is given of the reaction of the tetrachloro anhydride of terephthaloil-bis-amidophosphate (I) with alcohols, phenols (II), oximes (III), amines (IV), and Na salts of carboxylic acid and formation of the corresponding derivatives with the general formula $Z/C(O)NHF(O)(R)R'_1/2$ (VI), where R and R' = the alkoxyl, phenoxy-, or acyloxy group, substituted amino group and oxime radical. The reactions with II, III, and IV are carried out in a C_6H_6 solution in the presence of Et_3N at 20° or boiling and the reactions with V are carried out in acetone. Depending on the stoichiometric ratios of the reagents used, 2 or 4 Cl atoms are substituted in the tetrachloro anhydride. Example. I in C_6H_6 is added to a solution of PhOH and Et_3N , boiled for 40 min, kept 4 hours at 20° , $Et_3 \cdot HCl$ filtered out, and the solvent distilled off to obtain as a residue VIa ($R = R' = PhO$, boiling point $163-5^\circ$. VI are presented ($R = R'$ and melting point in $^\circ C$ are given): for VIa: AcO , 178-80; $PhCH_2NH$, 1/2

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RUDAVSKIY, V. P. AND LITOSHENKO, N. A., Khim. tekhnologiya. Nauch.-proizv. sb., No 3(69), 1973, pp 55-56

241-3; for VIb : PrO, 125-7; PhO, 173-5; 4-BrC₆H₄NH, 238-40. The dichloro-dicyclohexanoxime and tetracyclohexanoxime esters of VIb were also obtained, melting point 203-4 and 191-20, respectively. VIa (R = R' = OH) obtained by hydrolysis of I in acetone at 20° for 20 hours, melting point 218-9°.

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USSR

RUDAVSKIY, V. P., LITOSHENKO, N. A., and BABIN, YE. P.

"Synthetic Method for Tetra-(p-nitrophenyl)-ester of Dichloromaloylbisamido-phosphoric Acid"

USSR Author's Certificate No 345164, filed 2 Aug 68, published 6 Mar 73
(from RZh-Khimiya, No 20, Oct 73, Abstract No 20 N 507P)

Translation: Tetra-(p-nitrophenyl)-ester (I) of dichloromaloylbisamidophosphoric acid is obtained by reacting $\text{CCl}_2\text{CONHP(O)Cl}_2$ (II) with $\text{p-NO}_2\text{C}_6\text{H}_4\text{OH}$ (III) in presence of an HCl acid acceptor, in an inert organic solvent. Example. A mixture of 0.04 mole III, 0.04 mole Et_3N , 0.04 mole II in 20 ml C_6H_6 is refluxed for 30-40 min and kept for 6 hr at 20° , the $\text{Et}_3\text{N}\cdot\text{HCl}$ is filtered off, the solvent evaporated, yielding I, the yield 62%, m.p. $107-8^\circ$. I exhibits a high fungicidal and insecticidal activity.

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USSR

UDC 546.185

ZACNYBIDA, D. M., and RUDAVS'KYY, V. P., Kiev Medical School No 1

"Synthesis of Haloidacylamidophosphoric Acids"

Kiev, Farmatsevtichnyy Zhurnal, No 1, Jan-Feb 73, pp 32-34

Abstract: The article describes methods for the synthesis of haloidacylamidophosphoric acids and their physicochemical properties. Prolonged heating of haloidacylamidophosphoric acid dichlorides with water gives halocarboxylic acid amides, phosphoric acid and hydrogen chloride. The interaction of equivalent quantities of haloidacylamidophosphoric acid dichlorides and water (in acetone) gives haloidacylamidophosphoric acids. The latter can also be obtained by the action of an excess of anhydrous acetic acid or water on trichlorophosphazohalocarbonyls in a benzene solution, with haloidacylamidophosphoric acid dichlorides as the intermediate product. Haloidacylamidophosphoric acids decompose on heating in aqueous or alcoholic solutions. When heated above the melting point, they decompose into halocarboxylic acid nitriles and phosphoric acid.

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USSR

UDC 547.582+546.185

RUDAVSKIY, V. P., and KUCHEROVA, M. N.

"Phosphorylized Derivatives of Trichloroacetic Acid"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), Vyp 4, 1972, pp 797-801

Abstract: The title compounds were prepared in order to study these new physiologically active compounds which are being used as herbicides. Compounds of the general types $\text{CCl}_3\text{CON} = \text{PX}_3$ and $\text{CCl}_3\text{CONHPOX}$ were obtained where X was a substituted phenyl group linked to the P through O, S, or N. The compounds were readily soluble in alcohol, acetone, dioxane, and benzene; and slightly soluble in ether and petroleum ether.

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UDC 632.95

USSR

RUDAVSKIY, V. P., KUCHEROVA, M. N., KONDRATENKO, V. I., LITOSHENKO, N. A.,
and BABIN, Ye. P.

"Synthesis of Acylphosphazo Compounds"

USSR Author's Certificate No 316694, filed 10 Jun 68, published 27 Jan 72
(from Referativnyy Zhurnal -- Khimiya, Svochnyy Tom (I, L-S), No 1(II), 1973,
Abstract No 1N505P by T. A. Belyayeva)

Translation: Compounds $RC(X)N = P(OOCR')YZ$ (I) (R = alkyl, alkyl halide, phenyl halide; X = O, NPh, NEt, NC_6H_4Me ; R' = alkyl, alkyl halide, phenyl halide; Y and Z = Cl or $OOCR'$) and $(R''COO)_3P = NOCR''CCH = P(OOCR'')_3$ (II) (R'' = alkylene halide; R''' = alkyl, alkyl halide, phenyl halide) are synthesized in reaction of corresponding trichloro- and bis(trichlorophosphazo compounds (III) with carbonate in organic solvent. The reaction is terminated by boiling of the reaction mixture. Example. To 0.03, 0.06, or 0.09 mole $R'COOM$ (M = Na or K) in 30 ml of organic solvent 0.03 mole $RCOH = PCl_3$ is added during continuous stirring and cooling with ice water. The reaction mixture is boiled for 8-10 hrs on water bath, kept at 20°C for 6 hrs, MCl is removed by filtration and the remained mass is concentrated by evaporation. The obtained viscous liquid (I) (X = O) is purified by multiple precipitation from C_6H_6 or PhMe with petroleum ether. Using III, compounds II are prepared in a similar way. I and II can be used as herbicides.

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UDC 632.95

USSR

SMOLINA, A. A.I., SHOMOVA, Ye. A., RUDAVSKIY, V. P., KOVAL', A. A.,
SHCHEVCHENKO, V. I.

"Insecticidal and Fungicidal Activity of Esters of N-carbacylamido Phosphoric Acids"

Fiziol. aktivn. veshchestva. Resp. mezhved. sb. (Physiologically Active Materials. Republic Interdepartmental Collection), 1972, vyp. 4, pp 19-22 (from RZh-Khimiya, No 5 (II), 1973, Abstract No 5N578)

Translation: The results are presented from testing compounds containing residues of phosphoric and halogen carboxylic acids $RC(OR') = NPO(OR')_2$ ($R = CCl_3, CF_3, R''CCl_2, R'' = \text{alkyl}$) and $R'''CCl_2CONHPO(OR'')_2$ ($R''' = \text{alkyl}$) simultaneously for contact insecticidal activity against *Calandra oguzae* L., *Drosophila* S. P. and fungicidal toxicity in pure cultures of *Fusicladium dendriticum* (Wallr.) Fusk., *Verticillium dahliae* Rleb. $MeCCl_2C(OEt) = NOP(OEt)_2$, $EtCCl_2C(OEt) = NPO(OEt)_2$, $PrCCl_2C(OEt) = NPO(OEt)_2$ cause 100% destruction of *Drosophila* S. P. with 5 and 10% concentration of the solution in acetone after 24 hours. The tested compounds demonstrate very weak fungicidal activity.

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USSR

UDC 632.95

SHIRANKOV, D. F., RUDAVSKIY, V. P., and KOVAL', A. A.

"A Herbicide"

USSR Author's Certificate No 337111, filed 17 Aug 70, published 1 Jun 72
(from RZh-Khimiya, No 10, May 73, Abstract No 10N607P by T. Ya. Ogibina)

Translation: It is proposed that alkyl ethers of N-dialkyl phosphono- α, α' -dichloroiminocarboxylic acids of the formula $RCCL_2C(OR')=NP(O)(OR'')OR''$ (I)

(R = alkyl- C_1-C_3 , R', R'', R''' = Me, Et, Pr or Bu) made on the basis of plentiful raw material (nitriles of carboxylic acids, PCl_3 , Cl_2 and alcohols)

be used as a herbicide. The tested substances are used in the form of acetone solutions in a concentration of 0.1, 0.5, and 1%. Examples are given of testing of herbicidal activity on mono- and dicotyledons with application to the soil and spraying. Germinating capacity of seeds is determined, and the length of the stalk and root is measured. The maximum effect was achieved by spraying the plants. The nature of the action of the chemicals is totally destructive. Compounds I (R = Et, R' = R'' = R''' = Bu) and I (R = Pr, R' = R'' = R''' = Bu) are destructive of monocotyledons in a dose of 1 kg/ha.

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USSR

UDC 547.461'3.26.118.07

RUDAVSKIY, V. P., LITOSHENKO, N. A., and BABIN, YE. P.

"A Method of Making Tetra-(p-nitrophenyl) Ester of Dichloromaloylbis-Amidophosphoric Acid"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 22, Aug 72, Author's Certificate No 345164, Div C, filed 2 Aug 68, published 14 Jul 72, p 96

Translation: This Author's Certificate introduces a method of making tetra-(p-nitrophenyl) ester of dichloromaloyl-bis-amidophosphoric acid. As a distinguishing feature of the patent, dichloromaloyl-bis-amidophosphoryl tetrachloride is reacted with p-nitrophenol in the presence of a hydrogen chloride acceptor in an inert organic solvent with subsequent isolation of the goal product by conventional methods.

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USSR

UDC 547.582:546.185

RUDAVSKIY, V. P., SEDLOVA, L. N., and KUCHEROVA, M. N.

"Phosphorylated Derivatives of Fluobenzoic Acid Amides"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 5, May 72, pp 972-976

Abstract: It was found that: 1. Trichlorophosphazofluoroacyls react with phenols and thiophenols in the presence of triethylamine, to form triamido- and triphenoxy (trithiophenoxy) phosphazofluoroacyls; 2. Fluorobenzoyl-amidophosphoryl dichlorides react with amines, alcohols and phenols in the presence of triethylamine to form diamides and diesters of fluoro-benzoylamidophosphoric acids; 3. Phosphorus pentachloride reacts with fluorobenzoylamidophosphoryl dichlorides, to form N-dichlorophosphonyl-iminofluorobenzoyl chlorides which form N-diamidophosphonyl-N'-aryl-fluorobenzamidines with amines.

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USSR

UDC 546.185

RUDAVSKIY, V. P., and ZAGNIBEDA, D. M.

"Acid Chlorides of Halodiacylamidoarylphosphonic Acids"

Kiev, Khimicheskaya Tekhnologiya, No 3 (63), May-June 72, pp 60-61

Abstract: Acid chlorides of halodiacylamidoarylphosphonic acids (I) are obtained by hydrolysis of phenyldichlorophosphazohalocarbacyls with water, formic acid or glacial acetic acid. They are very reactive compounds, reacting energetically with alcohols, phenols, amines, and other compounds with active hydrogen or metal atoms. The best agent for above hydrolysis is formic acid, the reaction being carried out at 25-30°C in benzene. (I) is more stable than the parent compound. It has a sharp melting point, and is soluble in benzene, acetone, and dioxane, but insoluble in ether and petroleum ether.

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USSR

UDC 547.58:546/547.07

RUDAVSKIY, V. P., and LITOSHENKO, N. A.

"Bis-haloacylamidoarylphosphonic Acid Dichlorides"

Kiev, Khimicheskaya Tekhnologiya, No 2 (62), Mar-Apr 72, pp 62-63

Abstract: Bis-haloacylamidoarylphosphonic acid dichlorides are formed in the reaction of bis-phenyldichlorophosphazohalocarbacyls with water, or anhydrous formic or acetic acids. They are crystalline materials, readily soluble in benzene, acetone, and dioxane. They react vigorously with alcohols, phenols, amides, and other compounds with an active hydrogen or metal atom.

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USSR

UDC 632.95

RUDAVSKIY, V. P., and LITOSHENKO, N. A.

"Tetraanilides of bis-Polyhaloacylamidophosphoric Acids"

Khim. Tekhnologiya. Nauch.-Proizv. sb. [Chemical Technology, Scientific and Production Collection], No 6(60), p 45, 1971, (Translated from Referativnyy Zhurnal, Khimiya, No 9, 1972, Abstract No 9 N484 by T. A. Belyayeva)

Translation: bis-Polyhaloacylamidophosphoric acid tetraanilides were produced in order to study their physiological properties (I; II acid) by the reaction of II acyl tetrahalides (III) with amines (An) in the presence of Et_3N or with double the quantity of An. 1. 0.01 mol III in 20 ml C_6H_6 was added to a solution of 0.08 mol An in 30 ml C_6H_6 , cooling with ice water, kept for 6 hours at -20° , filtered, evaporated, the residue crystallized, washed with water and alcohol, dried, producing I, yield 67083%. 2. 0.01 mol III in 20 ml C_6H_6 was added to a solution of 0.04 mol An, 0.04 mol Et_3N in 30 ml C_6H_6 , cooling with ice water, boiled for 30-40 minutes, kept for 30 hours at 20° , filtered, evaporated, yielding I, yield 70-80%. 3. 0.01 mol bis-trichlorophosphazohaloacyl in 20 ml dioxane was added to a solution of 0.12 mol An in 30 ml dioxane with cooling with ice water, kept for 8 hours at 20° , 50 ml of 96% alcohol was added, boiled 30 minutes, yielding I.
1/1

USSR

UDC 547.46.185:542.91

RUDAVSKIY, V. P., and LITOSHENKO, N. A.

"Tetraanilides of bis-Polyhaloacylamidophosphoric Acid"

Kiev, Khimicheskayay Tekhnologiya, No 6 (60), Nov-Dec 71, p 45

Abstract: To a solution of 0.08 g-mole of amine in 30 ml benzene 0.01 g-mole of bis-polyhaloacylamidophosphoric acid tetrachloride (I) in 20 ml benzene is added with stirring and cooling, the mixture is then left standing for 6 hrs at room temperature, the precipitated amine hydrochloride is filtered off, the solvent removed, and the residue recrystallized to yield the desired tetraanilide. Another method consisted of adding (I) to a mixture of amine and triethylamine in benzene, refluxing for 30-40 min and letting the mixture stand for about 30 hrs at room temperature. The workup remained unchanged. Instead of benzene, dioxane may be used as a solvent. After the addition of the reagents is completed, alcohol is added and the mixture refluxed; the product then precipitates out.

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USSR

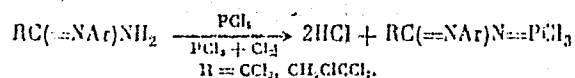
UDC: 546.185

RUDAVSKY, V. P., KUCHEROVA, M. N.

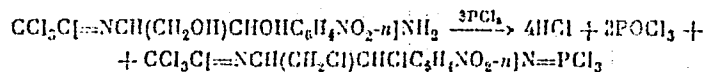
"Trichlorophosphazo-N-Aryl Iminotrichloroalkyls"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 6, Jun 72, pp 1288-1290

Abstract: It was found that N-aryltrichloroalkylamidines react with phosphorus pentachloride or with phosphorus trichloride and chlorine to form trichlorophosphazo-N-arylminotrichloroalkyls.



When three moles of phosphorus pentachloride was reacted with N-1-p-nitrophenyl-1,3-propanediol trichloroacetamide, trichlorophosphazo-N-1-p-nitrophenyl-1,3-dichloropropane iminotrichloroacetyl was formed.

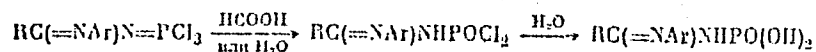


Trichlorophosphazo-N-aryl iminotrichloroalkyls readily react with anhydrous formic acid or water to give N-dichlorophosphonyl N'-aryl trichloroalkylamidines which, upon subsequent hydrolysis, yield N-phosphono-N'-aryl trichloroalkylamidines.

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USSR

RUDAVSKIY, V. P. and KUCHEROVA, M. N., Zhurnal Obshchey Khimii, Vol 42(104)
No 6, Jun 72, pp 1288-1290



Trichlorophosphazo-N-aryl iminotrichloroalkyls, N-dichlorophosphonyl N'-aryl trichloroalkylamidines and N-phosphono-N'-aryl trichloroalkoyl amidines are crystals or thick liquids which dissolve readily in acetone, dioxane and benzene, and dissolve with difficulty in ether and petroleum ether.

2/2

USSR

UDC 632.95

ABRAMOVA, K. A., SHIRANKOV, D. F., NIZHNIKOVA, YE. YE., and RUDAVSKIY, V. P.
"A Herbicide"

USSR Authors' Certificate No 301141, Cl. A 01 n 9/02, filed 12 May 70, published 2 Dec 71 (from RZh-Khimiya, No 14, 25 Jul 72, Abstract No 14N537P by T. A. BELYAYEVA)

Translation: The authors suggest the application as herbicides of alkyl esters of chlorinated fatty acids with the formula RCH_2CCl_2COOR' (I) $R = MeC_6H_4$, $MeOC_6H_4$, ClC_6H_4 , BrC_6H_4 , $NO_2C_6H_4$, $R' = Me, Et$), which are obtained by the reaction of nitriles of aliphatic-aromatic acids and alcohols. I's, inactive when applied to the soil, displayed high herbicidal activity when sprayed on the green mass of vegetation. I ($R = p-MeOC_6H_4$, $R' = Me$) displays selectivity for monocotyledonous crops and beans.

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- 50 -

USSR

UDC 547.26.118.07

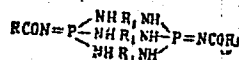
RUDAVSKIY, V. P., KUCHEROVA, M. N., and SEDLOVA, L. N.

"A Method of Synthesizing Derivatives of Cyclic Amides of Phosphoric Acid"

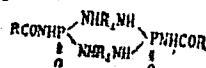
Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obratzys, Tovarnyye Znaki, No 17, 1971, Author's Certificate No 304256, Division C, filed 8 Dec 1969, published 25 May 1971, pp 85-86

Translation: This Author's Certificate introduces: 1. A method of synthesizing derivatives of cyclic amides of phosphoric acid of the general formulas

or

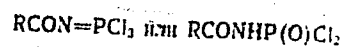


or



where R is a halogen-substituted phenyl or alkyl, and R_1 is an alkylene or phenylene. As a distinguishing feature of the patent, a diamine is interacted with a phosphoric acid chloride of the formula:

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USSR

RUDAVSKIY, V. P., et al., Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 17, 1971.

in the presence of an organic base in an organic solvent with subsequent isolation of the goal product by conventional methods. 2. A modification of this method distinguished by the fact that the process is carried out in the presence of an excess of amine.

2/2

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Organophosphorous Compounds

USSR

UDC 546.185

RUDAVS'KIY, V. P., and ZAGNIBIDA, D. M., Kiev Medical School No 1

"Phenyldichlorophosphoazohaloalkanes"

Kiev, Farmatsevtichnyi Zhurnal, Vol 26, No 3, May-June 71, pp 84-86

Abstract: The methods of preparation of phenyldichlorophosphoazohaloalkanes (I), phenyldichlorophosphoazo-alpha, alpha, beta, beta- tetrachloropropanes (II), and acid chlorides of N-phenylchlorophosphonyliminohalocarboxylic acids (III) are described.

Compounds I are prepared from phenyldichlorophosphoazohalocarbacyl and an equimolar amount of phosphorus pentachloride, heating the mixture to 80-90°. Compound I is a viscous liquid.

Compounds II are obtained from phenyldichlorophosphoazo-alpha, alpha, beta-trichloropropane and phenyldichlorophosphoazo-alpha-chloro-alpha, alpha-dichloropropionyl, and phosphorus pentachloride, heating the mixture to 60-90°. Compound II is a thick liquid.

Compounds III are formed from phenyldichlorophosphoazohaloalkane and
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USSR

RUDAVS'KIY, V. P., and ZAGNIBIDA, D. M., Farmatsevtichniy Zhurnal, Vol 26, No 3, May-June 71, pp 84-86

anhydrous formic acid in benzene, initially with cooling, then with heating to 50-60°. Compound III is a thick liquid.

The preparations are purified by recrystallization from a benzene-petroleum ether solution.

2/2

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USSR

UDC 547.464:632.954

RUDAVSKIY, V. P., LITOSHENKO, N. A., and ZAGNIBEDA, D. M.

"Some Derivatives of Trichloro- and bis-Trichlorophosphazohalocarbacyls"

Kiev, Khimicheskaya Tekhnologiya, No 1(55), Jan-Feb 71, pp 19-23

Abstract: Searching for novel herbicides, fungicides, and insecticides, a series of phosphorylated derivatives of halocarboxylic and halodicarboxylic acids was prepared. Reacting trichloro- and bis-trichlorophosphazocarbacyls with phenols, thiophenols, furfuraloximes, and acetophenoxime in the presence of triethylamine, or with sodium phenoxide, thiophenoxide or acetate gave a series of products of different degree of substitution depending on the ratio of the reagents taken. Reaction of trichlorophosphazohalocarbacyls with amines gave trianilidophosphazohalocarbacyls. Reactions of one, two, or three moles of phenol or thiophenol with trichlorophosphazohalocarbacyls gave monothiophenoxydichloro-, dithiophenoxychloro-, and triphenoxy(trithiophenoxy)phosphazohalocarbacyls respectively. Bis-trichlorophosphazohalocarbacyls react with phenols and thiophenols yielding bis-monophenoxy(thiophenoxy)-, dichloro-bis-diphenoxy(dithiophenoxy)chloro-, and bis-triphenoxy(trithiophenoxy)phosphazohalocarbacyls. Oximes in presence of triethylamines

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USSR

RUDAVSKIY, V. P., et al., Khimicheskaya Tekhnologiya, No 1(55), Jan-Feb 71,
pp 19-23

or sodium acetates, when allowed to react with bis-trichlorophosphazohalo-
carbacyls, form di-, tetra-, and hexasubstituted bis-trichlorophosphazo-
carbacyls.

2/2

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USSR

UDC 632.95

RUDAVSKIY, V. P., LITOSHENKO, N. A., BABIN, YE. P.

"Bis-Trichlorophosphazopolyhalogen Carbacyls"

Khim. prom-st' Ukrainy. Nauchno-proizv. sb. (Chemical Industry of the Ukraine -- Collection of Scientific and Production Works), 1970, No 2(50), pp 46-47 (from RZh-Khimiya, No 19 (II), 10 Oct 70, Abstract No 19 N565 by S. LYUBARSKAYA)

Translation: Biologically active compounds of the formula $R(CON=PCl_2)_2$ (I) are obtained by the reaction of diamides of polyhalogen carboxylic acids with two moles of pulverized PCl_5 in a medium of $PhCl$ or $PhNO_2$ at $80-120^\circ/300-400$ mm for 50-80 minutes or by passing dry Cl_2 through a mixture of diamide with two moles PCl_3 in CCl_4 under the same conditions. A vacuum is needed to remove the HCl gas which produces the various I. The following I are obtained with a yield of 86-96 percent (shown are R, melting point and decomposition temperature in $^\circ C$): CCl_2 , 118-21, 130-40; $(CH_2)_2$ - $(CCl_2)_2$, 117-9, 140-50; $(CH_2)_4$ - $(CCl_2)_2$, 119-21, 160-70; $(CH_2)_6$ - $(CCl_2)_2$, 159-61, 170-80; $(CF_2)_3$, 44-6, 200-210; $(CF_2)_4$, 76-8, 230-40; p - $CF_2(C_6H_4)_2$, 82-5, --; p - $CF_2-C_6H_4)_2$, 127-9. The rate of
1/2

USSR

RUDAVSKIY, V. P., et al, Khim. prom-st' Ukrainy. Nauchno-proizv. sb. 1970, No 2(50), pp 46-47 (from RZh-Khimiya, No 19 (II), 10 Oct 70, Abstract No 19 N565 by S. LYUBARSKAYA)

the diamide reactions with PCl_5 decreases with an increase in the number of electronegative substituents in the bisacyl groups, but the thermostability of I increases.

2/2

USSR

UDC 632.95

SHIRANKOV, D. F., SHEVCHENKO, V. I., KOVAL', A. A., and KULAVSKIY, V. P.,
Institute of Organic Chemistry, Kiev, Academy of Sciences Ukrainian SSR

"Herbicide"

USSR Authors' Certificate No 246960, filed 11 Apr 67, published 13 Jan 70
(from Izh-Khimiya, No 20 (II), 25 Oct 70, Abstract No 20 H626P by S. LYUBANSKAYA)

Translation: Compounds of the general formula $X_2CC(OR) = NP(O)(OR)_2$ (I; X = Cl, F; R = C₁ - C₅-alkyl) did not act on plants when applied to the soil. When sprayed on plants in a dose of 5-10 kg/ha, I's (R = Pr, n-C₅H₁₁; X = Cl and R = Bu, X = F) suppress radishes and buckwheat 70-85% and do not harm oats and wheat.

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1/2 023
TITLE--BIS,TRICHLOROPHOSHAZO,POLYHALOCARBACYS -U-
AUTHOR-(03)-RUDAVSKIY, V.P., LITOSHENKO, N.A., BABIN, YE.P.
COUNTRY OF INFO--USSR
SOURCE--KHIM. PROM. UKR. 1970, (2), 46-7
DATE PUBLISHED--70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--CHLORINATED ORGANIC COMPOUND, AZO COMPOUND, ORGANIC PHOSPHORUS
COMPOUND, ELECTRONEGATIVITY, CHEMICAL SUBSTITUENT, ACYL RADICAL, THERMAL
STABILITY, ORGANIC SYNTHESIS, THERMAL DECOMPOSITION, CHEMICAL REACTION
TEMPERATURE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--2000/0823
CIRC ACCESSION NO--AP0124490
STEP NO--UR/0436/70/000/002/0046/0047
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124490

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE COMPS. (I), OF GENERAL FORMULA R(CON:OCL SUB3) SUB2, ARE PREPD. BY REFLUXING A POLYHALOCARBOXYLIC ACID DIAMIDE (II) IN VACUO WITH TWICE ITS WT. PCL SUB5 AT 80-120DEGREES. BY INCREASING THE NO. OF ELECTRONEG. SUBSTITUENTS IN THE ACYL GROUPS OF II, THE RATE OF REACTION WITH PCL SUB5 AND THE THERMAL STABILITY OF THE I PRODUCED CAN BE GREATLY INCREASED. I PREPD. ARE (R, REACTION TEMP., REACTION TIME (MIN), PERCENT YIELD, M.P., AND THERMAL DECOMP. TEMP. GIVEN): (FORMULA SHOWN ON MICROFICHE).

UNCLASSIFIED

USSR

UDC 547.464.7

R
RUDAVSKIY, V. P., LITOSHENKO, N. A., and KUKHAR', V. P., Institute of Organic Chemistry, Academy of Sciences Ukrainian SSR

"Phosphorylated Derivatives of Polychlorodicarboxylic Acid Diamides"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 5, May 70, pp 1002-1005

Abstract: Polychlorodicarboxylic acid diamides react with phosphorus pentachloride to give bistrichlorophosphazopolychloracyls (I). The latter react with primary amines, phenols and thiophenols to give bis-triamidophosphazopolychloracyls (II) and bistriaroxy- and bistrithioaroxyphosphazopolychloracyls (III). Bisphosphazo compounds I-III are readily hydrolyzed with water or atmospheric moisture to corresponding bisacylamidophosphoric acid derivatives (IV). Tetraamides, tetraesters and tetrathioesters of polychlorobisacylamidophosphoric acids are obtained from polychlorobisacylamidophosphoric acid tetrachlorides (IV, X=Cl) and amines, phenols and thiophenols in the presence of triethylamine.

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USSR

R Organophosphorus Compounds

UDC 547.46.632.954

RUDAVSKIY, V. P., LITOSHENKO, N. A., and BABIN, YE. P.

"Bis-trichlorophosphazopolyhalocarbazyls"

Kiev, Khimicheskaya Promyshlennost' Ukrainy, No 2, 70, pp 46-47

Abstract: Use was made of the synthesis of bis-trichlorophosphazopolyhalocarbazyls in order to establish the relationship between the structure and reactivity of polyhalodicarboxylic acid diamides and phosphorus pentachloride and to study the physiological properties as a function of the structure of polyhaloorganophosphorus compounds using the scheme of the phosphazene reaction. The reaction of polyhalodicarboxylic acid diamides with phosphorus pentachloride revealed the following regularity: when the number of electronegative substituents in the bis-acyl groups of polyhalodicarboxylic acid diamides is increased, the reaction rate with phosphorus pentachloride decreases. Bis-trichlorophosphazopolyhalocarbazyls are of great practical significance for obtaining various organophosphorus derivatives and biologically active compounds. These carbazyls are prepared from polyhalodicarboxylic acid diamides

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USSR

RUDAVSKIY, V. P., et al, Kiev, Khimicheskaya Promyshlennost'
Ukrainy, No 2, 70, pp 46-47

which are placed into a reflux condenser together with double quantities of both phosphorus trichloride and carbon tetrachloride. At a vacuum of 200--300 ml and at 80--120°C, chlorine gas is passed through for 50--80 mins. Dicarboxylic acid dinitriles are prepared by thermal decomposition of bis-trichlorophosphazohalocarbazyls or by treatment with hydrogen chloride. Dicarboxylic acid dinitriles and phosphorus oxychlorides are identified by conventional methods.

2/2

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USSR

UDC 616.988.25-836.1

AL'PEROVICH, P. M., and RUDAYA, B. I., Chair of Nervous Diseases, Vinnitsa Medical Institute imeni Pirogov

"Clinical Forms and Course of Contemporary Epidemic (Lethargic) Encephalitis"

Moscow, Zhurnal Nevropatologii i Psikhiatrii imeni S. S. Korsakov, Vol 70, No 8, 1970, pp 1129-1134

Abstract: Some 250 encephalitis patients ranging in age from 10 to 60 years were studied over the period from 1944 to 1968. It was found that contemporary epidemic encephalitis occurs in four clinical forms, lethargic, hyperkinetic, influenza-like, and vestibular. In pandemic periods, the disease occurs most frequently in its lethargic form, and the clinical picture is usually much milder. The hyperkinetic form is observed more frequently in nonpandemic periods, and its clinical symptoms during the acute phase are less pronounced. The influenza-like and vestibular forms are much more frequent during nonpandemic periods. In many cases parkinsonism develops without a preceding acute period. This condition is observed about eight times more frequently during nonpandemic periods.

1/1

USSR

UDC 621.314.57

RUDAYA, K.I., SASHKO, N.A., TRUSOV, G.G.

"System For Control Of Thyristors Of Diesel Locomotive Inverter Units"

Elektr. i teplovozn. tyaga (Electrical And Diesel Locomotive Traction), 1970, No 12, pp 23-24 (from RZh--Elektronika i yeye primeneniye, No 4, April 1971, Abstract No 4B666)

Translation: The paper describes a circuit for control of a thyristorized unit with a large number of series-connected elements (80 pieces in the channel). A phase-shifting device operates in accordance with the vertical principle with a sawtooth synchronizing voltage. The pulse shaper uses a Schmitt trigger. The output stage of the pulse generators for control of a group of power thyristors is fulfilled by an auxiliary thyristor. The circuit passed bench tests and was checked in a 3-phase dependent bridge inverter. The range of variation of the control angle is 0--220°. The precision of synchronization does not depend on the oscillations of the network, and the temperature limits are from minus 50 to plus 70° C.

1/1

- 11 -

1/2 014
UNCLASSIFIED
TITLE--SLIME FORMATIONS IN SOME ACTINOMYCETES OF THE ACTINOMYCES
HYGROSCOPICUS TYPE -U-
AUTHOR--(02)-RUDAYA, S.M., SOLOVYEVA, N.K.
PROCESSING DATE--02OCT70
COUNTRY OF INFO--USSR
SOURCE--MIKROBIOLOGIYA, 1970, VOL 39, NR 1, PP 101-103
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--ACTINOMYCES, BIOLOGIC STAIN, SOIL MICROBIOLOGY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1990/1405
STEP NO--UR/0220/70/039/001/0101/0103
CIRC ACCESSION NO--AP0109467
UNCLASSIFIED

2/2

014

CIRC ACCESSION NO--AP0109467
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--02OCT70

ABSTRACT. MORPHOLOGICAL CULTURAL AND
PHYSIOLOGICAL PROPERTIES AS WELL AS CONDITIONS FOR PRODUCTION,
MICROSCOPIC STRUCTURE AND CYTOCHEMISTRY OF PECULIAR FORMATIONS
(CONGLOMERATES) PRODUCED ON AERIAL MYCELIUM UNDER CERTAIN CONDITIONS OF
CULTURAL GROWTH WERE STUDIED IN CULTURES ISOLATED FROM SOIL AND SIMILAR
TO ACTINOMYCES HYGROSCOPICUS (CHARACTERISTIC BLACKENING, WETTING OF
AERIAL MYCELIUM). CONGLOMERATES ARE FORMED ON MATURE SPOREFORES LOOKING
LIKE SMALL FISTS. SPECIAL STAINING REVEALED THAT THESE FORMATIONS WERE
SLIME OF POLYSACCHARIDE NATURE. CHARACTERISTIC MACROSCOPIC STRUCTURE OF
AERIAL MYCELIUM IN ACT HYGROSCOPICUS SEEMS TO BE DUE TO SECRETION OF
SLIME AND NOT TO HYDROSCOPICITY OF AERIAL MYCELIUM.

UNCLASSIFIED

Hematology

USSR

UDC 615.385.1.03:616.12-008.1-78

RUDAYEV, Ya A., FEDOROVA, L. I., LIFLYANDSKIY, D. B., BATUKAYEV, A. I., and SEMENOVA, N. V., Central Institute of Hematology and Blood Transfusion, Ministry of Public Health USSR, and Institute of Cardiovascular Surgery imeni Bakuleva, Academy of Medical Sciences USSR, Moscow

"Thawed Erythrocytes as A New Charge for Artificial Circulation Equipment"

Moscow, Problemy Gematologii i Perelivaniya Krovi, Vol 15, No 7, Jul 70, pp 3-5

Abstract: Whole donor blood has been used in equipment for artificial circulation, but substantial difficulties are encountered when such blood must be ready for administration at a given moment. To study the overall perfusion of thawed and washed erythrocytes in open-heart surgery, 250 ml of thawed erythrocytes was introduced with small doses of whole blood. It was found that satisfactory blood levels could be maintained. The hemoglobin content in the peripheral blood was 8%, and the number of thrombocytes was reduced. The erythrocytes, which had been preserved for long periods of time, appeared to be resistant to all traumas during perfusion. No operative hemolysis was observed. Further study of this highly effective medium (erythrocytes diluted in a low-molecular-weight medium) is recommended.

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1/2 016
TITLE--ALLOYING OF STEEL -U- UNCLASSIFIED PROCESSING DATE--20NOV70
AUTHOR--(05)--LITVINENKO, D.A., RUDCHENKO, A.V., TORPANOVA, G.A., LEYKIN,
I.M., SHUSHLEBIN, B.A.
COUNTRY OF INFO--USSR
SOURCE--U.S.S.R. 263,637
REFERENCE--OTKRYTIYA, IZOBRET., PROR. OBRATZSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--10FEB70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--CHEMICAL PATENT, ALLOY STEEL, STEEL MANUFACTURING PROCESS,
NITRIFICATION
CENTREL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3004/1821 STEP NO--UR/0482/70/000/000/0000/0000
CIRC ACCESSION NO--AA0102086
UNCLASSIFIED

2/2 016

CIRC ACCESSION NO--AA0132086

UNCLASSIFIED

PROCESSING DATE--20NOV70

ABSTRACT/EXTRACT--(U) GP-C-

ABSTRACT. STEEL IS ALLOYED WITH N BY POURING

A STREAM OF HOT METAL OVER

STABLE METAL NITRIDES.

UNCLASSIFIED

172 006
UNCLASSIFIED
TITLE---FUNCTIONING OF DONOR DNA FROM ESCHERICHIA COLI IN RECIPIENT
SPHEROPLASTS OF REC PRIME POSITIVE AND REC PRIME NEGATIVE STRAINS OF
AUTHOR---(02)---RUDDENKO, U.N., MULCHANOV, M.I. PROCESSING DATE---30OCT70
COUNTRY OF INFO---USSR
SOURCE---GENETIKA 1970, 6(1), 111-20
DATE PUBLISHED---70
SUBJECT AREAS---BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS---ESCHERICHIA COLI, BACTERIAL DEOXYRIBONUCLEIC ACID
CONTROL MARKING---NO RESTRICTIONS
DOCUMENT CLASS---UNCLASSIFIED
PROXY REEL/FRA---1999/0595
CIRC ACCESSION NO---AP0122716
STEP NO---UR/0473/70/006/001/0111/0120
UNCLASSIFIED

2/2 006

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0122716

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DNA OF PROTOTROPIC E. COLI STRAINS INDUCED THE INCORPORATION OF PRIME14 C-LABELED AMINO ACIDS INTO THE SPEROPLASTS OF AUXOTROPIC E. COLI STRAINS GROWN IN MINIMAL MEDIUM. THE INCORPORATION IN THE PRESENCE OF DNA REACHED THE INCORPORATION LEVEL IN THE FULL MEDIUM AND SOMETIMES EXCEEDED IT. ONLY DNA ISOLATED FROM STRAINS PROTCTROPIC TO THE GROWTH FACTOR LACKING IN THE MINIMAL MEDIUM INDUCED THE INCORPORATION. THE INCORPORATION WAS SUPPRESSED BY CHLORAMPHENICOL AND ACTINOMYCIN D. THE SPHEROPLAST ABILITY TO SYNTHESIZE THE PROTEIN IN MINIMAL MEDIUM INDICATED THAT THERE WERE FUNCTIONING DONOR DNA GENES FOR THE SYNTHESIS OF AMINO ACIDS LACKING. THE SPHEROPLASTS OF REC PRIME POSITIVE AND REC PRIME NEGATIVE STRAINS OF E. COLI UNDER THE INFLUENCE OF DONOR DNA INCORPORATED EQUALLY EFFECTIVELY THE LABELED AMINO ACIDS INTO THEIR PROTEIN. IT WAS SUGGESTED THAT THE DONOR DNA FUNCTIONED AUTONOMOUSLY WITHOUT THE INTEGRATION INTO THE RECIPIENT CHROMOSOME. FACILITY: GAMALEI INST. EPIDEMIOLOG. MICROBIOLOG., MOSCOW. USSR.

1/2 009
UNCLASSIFIED
TITLE--CONNECTION BETWEEN THE DONOR DNA OF ESCHERICHIA COLI AND MEMBRANOUS
RECIPIENT SPHEROPLAST -U-
AUTHOR-(02)-RUDCHENKO, O.N., MOLCHANDV, M.I.
PROCESSING DATE--27NOV70
COUNTRY OF INFO--USSR
SOURCE--DOKL. AKAD. NAUK SSSR 1970, 190(1), 205-8
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--ESCHERICHIA COLI, RNA, CARBON ISOTOPE, CHEMICAL LABELLING,
CELL PHYSIOLOGY, BACTERIAL DEOXYRIBONUCLEIC ACID
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3002/1528
STEP NO--UR/0020/70/190/001/0205/0208
CIRC ACCESSION NO--ATO128923
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AT0128923
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. DONOR DNA IN THE FORM OF PRIME14 C
TAGGED MATERIAL FROM E. COLI, IN THE NATURAL OR DENATURED STATE, WAS
TRACED AFTER PENETRATION INTO RECIPIENT SPHEROPLASTS AND SPECIFICALLY
INTO THE CELL MEMBRANE MATERIAL OF E. COLI. THE PARTICULAR FRACTION OF
THE MEMBRANE DNA WITH WHICH THIS MATERIAL BECAME ASSOCD. WAS THE HIGH
MOL. WT. DNA. MUCH OF THE TAGGED MATERIAL BECOMES CONCO. IN THE
MEMBRANE RIBOSOME FRACTION OF THE SPHEROPLASTS.
EPIDEMOL. MIKROBIOL. IM. GAMALEI, MOSCOW, USSR. FACILITY: INST.

UNCLASSIFIED

USSR

UDC 575.8.093

R
RUDCHENKO, O. N., and MOLCHANOV, M. I., Institute of Epidemiology and Microbiology imeni N. F. Gamaleya, Moscow and the Institute of Biochemistry imeni A. N. Bakh, Academy of Sciences USSR, Moscow

"On the Link Between Donor DNA of Escherichia coli and the Membrane Fraction of Recipient Spheroplasts"

Moscow, Doklady Akademii Nauk SSSR, Vol 190, No 1, Jan-Feb 1970, pp 205-208

Abstract: The absorption rate and localization of donor DNA from E. coli was determined after its penetration into recipient spheroplasts and their membrane subfraction. Natural and denatured DNA labelled with C^{14} was used as the donor, with the spheroplasts of E. coli 15 TUH as recipients. Donor C^{14} -DNA was obtained from E. coli Rfr Hayes, centrifuged, washed several times with a tris-hydrochloric acid buffer (pH 8.0), and purified. Donor DNA was then incubated with the spheroplasts at 37° C. After incubation, DNA-ase was added to the incubation mixture. It was found that both native and denatured C^{14} -DNA are intensely absorbed by recipient spheroplasts. Within one minute after the beginning of the incubation, a considerable quantity
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USSR

RUDBCHENKO, O. N., et al., Moscow, Doklady Akademii Nauk SSSR, Vol 190, No 1, Jan-Feb 1970, pp 205-208

of C^{14} -DNA becomes resistant to the action of the DNA-ase. Further study of the fate of donor DNA after penetration into spheroplasts revealed the membrane - ribosome character of the spheroplast sub-fraction isolated after incubation of the latter with donor DNA.

2/2

UNCLASSIFIED
TITLE--THE COAGULATION AND FIBRINOLYTIC PROPERTIES OF THROMBOCYTES OF
RABBITS IN EXPERIMENTAL ATHEROSCLEROSIS -U-
AUTHOR-(03)-RUDCHENKO, S.A., NIKITIN, YU.P., FEDENKOV, V.I.
COUNTRY OF INFO--USSR
SOURCE--BYULLETIN' EKSPERIMENTAL'NOY BIOLOGII I MEDITSINY, 1970, VOL 69,
NR 3, PP 49-52
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--BLOOD COAGULATION, FIBRINOLYSIS, THROMBOCYTE, RABBIT,
ATHEROSCLEROSIS, DIET, CHOLESTEROL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1982/0849
CIRC ACCESSION NO--AP0052283
STEP NO--UR/0219/70/049/003/0049/0052
UNCLASSIFIED

2/2 022

UNCLASSIFIED

PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0052283

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. UNDER INVESTIGATION WERE THE PLASMA WASHED THROMBOCYTES, A SUSPENSION OF THEIR STROMA AND THROMBOLYSATES OF RABBITS RECEIVING WITH FOOD CHOLESTEROL IN A DOSE OF 0.4 GM-KG FOR 4 TO 6 MONTHS. THERE WAS FOUND A REDUCTION OF THEIR THROMBOPLASTIC AND RISE OF THE ANTIFIBRINOLYTIC ACTIVITY AT THE EXPENSE OF INCREASED CONTENT OF ANTI-ACTIVATORS. IN ATHEROSCLEROSIS THERE WERE NOTED NO ESSENTIAL ALTERATIONS IN THE ACTIVITY OF THE SECOND AND FOURTH THROMBOCYTIC FACTORS.

UNCLASSIFIED

UNCLASSIFIED
TITLE--CHANGES IN OXYGEN TENSION IN HYPODERMIS OF PATIENTS WITH BASEN
INDURATIVE ERYTHEMA IN OXYGEN INHALATION -U-
AUTHOR--(03)-VEYNEROV, I.B., SOKOLYANSKIY, I.F., RUDCHENKO, YU.A.
PROCESSING DATE--16OCT70
COUNTRY OF INFO--USSR
SOURCE--FIZIOLOGICHNIY ZHURNAL, 1970, VOL 16, NR 3, PP 369-373
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--OXYGEN THERAPY, OXYGEN METABOLISM, RESPIRATORY PHYSIOLOGY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FAME--1994/1356
CIRC ACCESSION NO--AP0115329
STEP NO--UR/0238/70/016/003/0369/0373
UNCLASSIFIED

2/2 021

CIRC ACCESSION NO--AP0115329
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--16OCT70

ABSTRACT. THE INVESTIGATIONS WERE CONDUCTED ON DETECTING THE PO SUB2 CHANGES IN HEALTHY HYPODERMIS AND IN THE NODES OF THE PATIENTS WITH THE BASEN INDURATIVE ERYTHEMA. IT IS SHOWN THAT WITH THE BEGINNING OF OXYGEN INHALATION PO SUB2 IN THE NODE OF THE BASEN INDURATIVE ERYTHEMA INCREASES INTENSIVELY DURING THE FIRST FIVE MINUTES. DURING THE FOLLOWING FIVE MINUTES THE INCREASE OF PO SUB2 IS COMPARATIVELY SMALL. THE INCREASE OF PO SUB2 IN HYPODERMIS DEPENDS ON THE PECULIARITIES OF THE LOCAL AFFECTION CLINICAL MANIFESTATION. THE HIGHEST (IS SIMILAR TO 450PERCENT WITH RESPECT TO THE INITIAL LEVEL) PO SUB2 WAS IN THE NODES OF THE MIDDLE SIZE REACHING THE DIMENSIONS OF A BIG PLUM. AFTER STOPPING OXYGEN INHALATION THE PO SUB2 INDICES LOWERED UP TO THE INITIAL LEVEL IN THE AFFECTED HYPODERMIS QUICKER THAN IN THE UNAFFECTED ONES. WITH RESOLVE OF THE NODE DURING THE PROCESS OF TREATMENT PO SUB2 DECREASES, APPROACHING THE LEVEL OF THE HEALTHY HYPODERMIS, BUT NOT REACHING IT EVEN WITH ITS COMPLETE RESOLVE DETERMINED VISUALLY AND PALPATORY. THE INVESTIGATION SHOWED, THAT THE DETERMINATION OF PO SUB2 DYNAMICS MAKES IT POSSIBLE TO JUDGE OF THE DISEASE PROCESS AS WELL AS TO CONTROL THE EFFICIENCY OF THE APPLIED THERAPEUTICS. FACILITY: THE A. A. BOGOMOLETZ INSTITUTE OF PHYSIOLOGY, ACADEMY OF SCIENCES, UKRAINIAN SSR, KIEV; INSTITUTE OF TUBERCULOSIS AND THORACIC SURGERY, KIEV.

UNCLASSIFIED

USSR

UDC 59:616.981.452:681.142.33

SOLDATKIN, I. S., RODNIKOVSKIY, V. B., and RULENCHIK, Yu. V., All Union Scientific Research Antiplague Institute, Saratov, Computer Center, Saratov State University, and Central Asian Scientific Research Antiplague Institute Alma-Ata

"Statistical Modeling of a Plague Epizootic"

Moscow, Zoologicheskii Zhurnal, No 5, 1973, pp 751-756

Abstract: The authors constructed a probabilistic model of the spread of plague based on numerical characteristics of the process and used it to study the development of epizootics under changing conditions of transmission of the pathogen. With "input" data on various elements of the process (fleas feeding on gerbils with bacteremia, geographic range of infected fleas, etc.), they successively simulated on a computer the situations that might arise and obtained in the "output" the number and distribution of infected gerbils at a given moment. Tests of the model showed that the spread of epizootics with preassigned parameters is greatly inhibited by "extinction" of some of the infected fleas as a result of their entering colonies of gerbils that have recovered from the disease.

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USSR

UDC 621.372

BATALOV, B. V., KAZENKOV, G. G., KOTKO, A. P., and RUDENKO, A. A.

"Algorithm for Statistical Analysis of Electronic Circuits"

Sb. nauch. tr. po probl. mikroelektron. Mosk. in-t elektron. tekhn.
(Collection of Scientific Works on Problems in Miniature Electronics,
Moscow Institute of Electronic Engineering) No 9 (Fiz.-mat. seriya),
pp 61-67, 1972 (from RZh--Radiotekhnika, No 10, 1972, Abstract No 10A113)

Translation: An algorithm for statistical analysis of electronic circuits in the algorithm language ALGOL-60, using the TA-1M translator for the M-20 digital computer, is proposed.

RUDENKO, A.A.

Microelectronics

MICROELECTRONICS

JPRS 57333
25 October 1972

Excerpts from Russian-language book edited by P. V. Lukin:
Mikroelektronika, No 5, 1972, Sovetskoye Radio Publishing House,
Moscow, UDC 621.382:621.396.6-181.5.

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(1 - USSR - F)

The dimensions of the active components, the influence of the dimensions being more significant as the required power of the circuit is less. The author's study the influence of the capacitance of the emitter junction of a microemitter transistor on the speed of response of the TTL of the circuit.

The article contains 6 figures, 2 tables, and 4 bibliographic references.

UDC 621.396.6-181.5

Basic Ways of Increasing the Quality of Logic Integrated Microcircuits. Vannukhova, S. V. in the Collection Microelektronika, No 5, p 110, Sovetskoye Radio Publishing House, 1972.

This article defines the functional relationship between the product of other physical parameters of space bounded by an arbitrary surface. On the basis of the obtained dependence the article discusses ways of increasing the speed of response and decreasing the scattering power of the logic integrated microcircuits.

The article contains 2 bibliographic references.

Use of Nonlinear Programming for Optimal Computation of the Geometric Dimensions of the Regions of Transistors of Integrated Circuits. Kazenkov, G. G., Batilov, B. V., Lebedeva, A. V., and Rudenko, A. A. in the Collection Microelektronika, No 5, p 118, Sovetskoye Radio Publishing House, 1972.

A method is suggested for solving problems of synthesizing active components based on the use of nonlinear programming equipment. The article gives a block-diagram of the program algorithm and a specific example of the optimal computation of the geometric dimensions of the regions of a transistor for an integrated semiconductor circuit.

The article contains 4 figures, 1 table, and 8 bibliographic references.

UDC 621.396.6-181.5

Structure of Micropower Integrated Internal Memories on Uniform Subsystems on Supplimenting MDP Transistors. Gordayev, B. K., et al. in the Collection Microelektronika, edited by T. V. Lukin, No 5, p 120, Sovetskoye Radio Publishing House, 1972.

USSR

UDC 621.396.6-181.5

BATALOV, B. V., KASIMOV, G. G., KOTKO, A. P., KURZAYEV, F. A., RUBEN-
KO, A. A.

"Evaluating the Uniformity of Parameters of Transistors in Integrated
Semiconductor Circuits"

Elektron. prom-st', Radio-tekhn. zh. (The Electronics Industry. Scien-
tific and Technical Collection), 1971, No 1, pp 47-53 (from Radiotekhnika, No 7, Jul 71, Abstract No 77271)

Translation: A procedure is developed for quantitative evaluation of
the degree of uniformity of the parameters of transistors in integrated
semiconductor circuits. This procedure can be used for designing cir-
cuits as well as for inspection under production conditions. Given as
the measure of uniformity is the pair correlation coefficient which
enables determination of the conditional distributions of parameters.

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RUDEENKO, A. A.

Devices

UDC: 621.396.6

"Coincidence-Anticoincidence Circuit With Nanosecond Resolving Time"

Moscow, Pribory i Tekhnika Eksperimenta, No. 3, 1971, pp 92-94

Abstract: A description is given of an electronic device containing advanced features that distinguish it from earlier versions described in articles published by the same author in the same journal (1958, No. 6, p 60; 1968, No. 2, p 91). In these earlier models of the coincidence-anticoincidence circuit, the characteristics inherent in semiconductor junctions tended to reduce the speed of the circuit and reduce its efficiency at low frequencies. These difficulties have been eliminated in the present model, which uses tunnel diodes in place of the original point-contact diodes. Circuits are given of the coincidence sampler, using 3I402Ye tunnel diodes and GT315B transistors, and the pulse-forming circuit, using 8I4B, D18, AI201V, AI201Ye, and 3I301V diodes together with a GT 3I3B transistor. The author is associated with the Physical Institute, USSR Academy of Sciences, in Moscow.

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USSR

Aluminum and Its Alloys

USSR

UDC 621.74.043.06

RUDENKO, A. F., BODYAKO, M. N., and ROVKACH, V. R., Physico-Technical
Institute, Academy of Sciences BSSR

"The Possibility of Increasing the Thickness of an Anode
Coating on an Aluminum Chill-Mold"

Minsk, Izvestiya Akademii Nauk BSSR, Seriya Fiziko-Tekhnich-
eskikh Nauk, No 4, 1973, pp 53-57

Abstract: The authors of this article have selected the op-
timal composition of an electrolyte for a thick-layer anod-
izing of aluminum chill-molds. They established the exper-
imental dependences between the size of the electrical par-
ameters (anode current density, voltage on the vat termi-
nals) and thickness of the anode coating on the working sur-
face of the aluminum forms. They show the necessity of using
powerful sources of direct current for depositing an anode
coating thicker than 0.25 mm.

USSR

RUDEKNO, A. F., et al., Izvestiya Akademii Nauk BSSR, Seriya Fiziko-Tekhnicheskikh Nauk, No 4, 1973, pp 53-57

Figure 1 illustrates the anodizing of experimental aluminum chill-molds and Figure 2 shows the change in voltage and current density as a function of growth in thickness of the anode coating. Table 1 gives the dependence of specific rate of growth in the anode film on the AL9 alloy on the amount of Mg in it and on the composition of the electrolyte. Table 2 shows the dependence of maximal thickness of the anode film on chill-molds of the AL9 alloy on the amount of magnesium in it.

The article contains 2 illustrations, 2 tables, and 4 bibliographic references.

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USSR

UDC: 539.3

RUDENKO, A. G.

"A Plate With Two Unequal Circular Openings Reinforced by Cover Plates"

Tr. Nikolayev. korablestroit. in-ta (Works of the Nikolayev Shipbuilding Institute), 1970, vyp. 40, pp 166-174 (from RZh-Mekhanika, No 4, Apr 71, Abstract No 4V68)

Translation: The method of contour smoothing is used as a basis for formulating and solving the problem of reinforcement of two unequal circular openings by narrow elastic cover plates of the curved bar type. Approximate formulas are given for determining the coefficient of stress concentration at weak points of the openings for the case of two equal reinforced openings. It is found that reinforcing cover plates work to greater effect in the case of a plate with circular openings located close together than in the case where the holes are far apart. Author's abstract.

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1/2 028 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--STRESS CONCENTRATION IN THE CASE OF A PARTIALLY STRENGTHENED
CIRCULAR HOLE -U-
AUTHOR-(03)-TULCHIY, V.I., YAKIMOVICH, G.I., RUDENKO, A.G.
COUNTRY OF INFO--USSR
SOURCE--PRIKLADNAYA MEKhanika, VOL. 6, APR. 1970, P. 93-98
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--STRESS CONCENTRATION, REINFORCED SHELL STRUCTURE, FLAT PLATE,
TENSILE STRESS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAme--2000/1328 STEP NO--UR/0198/70/000/006/0093/0098
CIRC ACCESSION NO--APO124978

UNCLASSIFIED

2/2 028

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0124978

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. APPLICATION OF A CONTOUR SMOOTHING TECHNIQUE TO THE FORMULATION AND SOLUTION OF TWO STRESS CONCENTRATION PROBLEMS FOR (1) A HOLE STRENGTHENED ALONG ONE SEMICIRCLE AND (2) A HOLE SYMMETRICALLY STRENGTHENED AT TWO (OPPOSITE) PARTS OF ITS CONTOUR. CALCULATIONS FOR THE LATTER CASE ARE PERFORMED FOR STRENGTHENING MATERIALS SIMILAR TO AND DIFFERING FROM THAT OF THE PLATE. IT IS SHOWN THAT FOR A PLATE EXPERIENCING UNIAxIAL TENSION, THE WEIGHT OF THE STRENGTHENING ELEMENT CAN BE REDUCED (WITH THE AID OF PARTIAL STRENGTHENING) WITHOUT A NOTICEABLE INCREASE IN THE STRESS CONCENTRATION FACTOR AT THE EDGE OF THE HOLE. FACILITY: NIKOLAEVSKII KORABLESTROITEL'NYI INSTITUT, NIKOLAEV, UKRAINIAN SSR.

UNCLASSIFIED

1/2 055 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--OXIDATION OF ATMOSPHERIC NITROGEN IN A PLASMA -U-
AUTHOR-(03)-GANZ, S.N., PARKHOMENKO, V.D., RUDENKO, A.I.
COUNTRY OF INFO--USSR
SOURCE--KHIM. UKR. 1970, (2), 24-6
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--OXIDATION, NITROGEN OXIDE, ELECTRODE, GAS FLOW, FLOW RATE,
PLASMA PHYSICS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3008/0471 STEP NO--UR/0436/70/000/002/0024/0026
CIRC ACCESSION NO--AP0137562
UNCLASSIFIED

2/2 055

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0137562

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT WAS STUDIED OF THE FOLLOWING ON THE DIRECT OXIDN. OF ATM. N IN A PLASMA: GAS FLOW RATE, DISTANCE BETWEEN THE ELECTRODES WHICH FORM THE D.C. ARC, THE GEOMETRIC FORM AND DIMENSIONS OF THE PLASMATRON REACTION CHAMBER. THE APP. IS DESCRIBED. FROM THE ANALYSIS OF THE EXPTL. DATA, THE CONSUMPTION OF ELEC. ENERGY, PER TON OF NO, IS ABOUT HALF OF THAT OF THE BEST PLANTS. FACILITY: DNEPROPETROVSK. KHIM.-TEKHNOL. INST., DNEPROPETROVSK, USSR.

UNCLASSIFIED

USSR

UDC 576.858.4

TAYKOVA, N. V.; SYDORENKO, O. V.; KORNYUSHENKO, N. P.; RUDE EN KO,
A. V.; Kiev State University

"Fractionation of Influenza Virus Type A by Chromatography on
DEAE Sephadex A-50"

Kiev, Mikrobiologicheskiy Zhurnal, Vol 33, No 3, May/Jun 71,
pp 334-338

Abstract: The effectiveness of the chromatographic method of
fractionation of influenza virus type A on DEAE Sephadex A-50 was
tested during purification of the following strains of the virus:
laboratory type Apr-8, A₂(Singapore)57, A₂(England)57, A₂(Lenin-
grad)67, and A₂(Hong Kong)68. Virus was obtained by infecting
10-day old chick embryos, incubating for 48 hours at 34°C, and
then extracting the allantoic fluid. The chromatographic frac-
tionation of virus-containing fluid was carried out on DEAE
Sephadex type A-50 in chloride form. The Sephadex was washed on
filter paper with 0.5 M hydrochloric acid and water and then

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TAYKOVA, N. V., et al, Mikrobiologicheskii Zhurnal, Vol 33,
No 3, May/Jun 71, pp 334-338

sodium hydroxide with water, suspended in 1/15 phosphate buffer pH 7.4, and poured into a test tube in a quantity necessary for virus purification. The allantoic fluid containing the virus, after centrifugation at 2,500 rpm for a period of 30 min., was added to the adsorbent-containing column; the column contents were then washed with 1/15 M phosphate buffer. Elution of the adsorbed virus was carried out in stages with the use of 0.1-1.0 M solution of sodium chloride in the same buffer. The purity of the virus was determined by content of proteins and nucleic acids in the eluate. On the basis of the obtained data, the method of chromatographic fractionation of viruses on DEAE-Sephadex is recommended for use as one of the methods for purification of influenza virus type A. Under such purification conditions the behavior of each of the strains is specific and may serve as a criterion of the strain characteristics of influenza viruses. Correlation between the chromatographic behavior of influenza viruses, their capacity for adsorption on chick erythrocytes,

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USSR

TAYKOVA, N. V., et. al, Mikrobiologicheskiy Zhurnal, Vol 33,
No 3, May/Jun 71, pp 334-338

and their relation to inhibitors, depending on the structural
characteristics of the supercapsid of the viruses, has been
established.

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JPRS 54811

29 December 1971

GAS CHROMATOGRAPHY IN BIOLOGY AND MEDICINE

As chromatography

Complete translation of book by L. D. Vityayev and B. A. Rudenko: "Goruyaya Khromatografiya v Biologii i Meditsine"; Meditsinskaya Press, Moscow, Russian, 1971, signed to press 16 February 1971, 224 pages.

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Degree of Separation of Peaks, Separation Factor	20
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1/2 012 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--CONSTRUCTION OF A GAS LIQUID CHROMATOGRAPH FOR ANALYZING LOW
STABILITY AND DIFFICULTLY VOLATILIZABLE COMPOUNDS -U-
AUTHOR--RUDEKNO, B.A., KUCHEROV, V.F., YUFIT, S.S.
COUNTRY OF INFO--USSR
SOURCE--ZAVOD. LAB. 1970, 36(1), 109-11
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--GAS CHROMATOGRAPHY, ACETAL, ACETYLENE HYDROCARBON, CHEMICAL
LABORATORY APPARATUS, ESTER, CHEMICAL STABILITY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1989/0240 STEP NO--UR/0032/70/035/001/0109/0111
CIRC ACCESSION NO--AP0106896
UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0106896

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A GAS LIQ. CHROMATOGRAPH, CONSTRUCTED FOR THE ANAL. OF LOW STABILITY AND HIGH B.P. COMPS. SUCH AS ACETALS, ORTHOESTERS, POLYALKOXY, POLYENIC, AND POLYACETYLENIC COMPS., IS DESCRIBED. THE VAPORIZER, THE COLUMN, AND THE COMMUNICATION SYSTEM IS MADE OF GLASS. THE LENGTH OF THE COLUMN CAN BE VARIED FROM 20 TO 350 CM. THE APP. IS EQUIPPED WITH A FLAME IONIZATION DETECTOR MADE ALSO OF GLASS WITH THE ELECTRODES MADE OF PT OR NI. THE DETECTOR SENSITIVITY WAS 10 PRIME4 TO 10 PRIME5 MV ML-MG.

UNCLASSIFIED

USSR

UDC: 621.391.8:591.27

KLEMENT'YEV, F. M., RUDENKO, B. D.

"On Optimizing Measurement of the Distribution Functions of Random Processes"

Dokl. Vses. nauchno-tekhn. konferentsii po radiotekhn. izmereniyam. T. 3 (Reports of the All-Union Scientific and Technical Conference on Radio Engineering Measurements. Vol. 3), Novosibirsk, 1970, pp 44-45 (from RZh-Radiotekhnika, No 12, Dec 70, Abstract No 12A57)

Translation: In solving the problem of optimizing measurements of the distribution functions of random processes, the test for errors must be properly selected. A criterion which satisfies these requirements is the area between the curve for the density distribution which is being sought, and the histogram of the process; this area depends on the values of the quantum levels as parameters, and therefore a study of the extremum will make it possible to find an optimum rule for quantization. In the general case, realization of such a system is complex, but the problem may be simplified by introducing certain limitations on the selection of quantizing levels. W. S.

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1/2 007
UNCLASSIFIED
TITLE--EFFECT OF TRACE FERTILIZERS ON THE YIELD AND QUALITY OF SUGAR BEETS
FOLLOWING THE GYPSUM-TREATMENT OF SOLONETZ SOILS OF THE UKRAINIAN FOREST
AUTHOR--RUDENKU, F.T.
COUNTRY OF INFO--USSR
SOURCE--AGROKHIMIYA 1970, (3), 144-5
DATE PUBLISHED--70
SUBJECT AREAS--AGRICULTURE
TOPIC TAGS--MINERAL FERTILIZER, AGRICULTURE CROP YIELD, SOIL TYPE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1999/0585
CIRC ACCESSION NO--AP0122706
STEP NO--UR/0485/70/000/003/0144/0145
UNCLASSIFIED

2/2 007

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0122706

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SUGAR BEET CULTURES WERE TREATED WITH: (A) N,P,K FERTILIZERS AT 60KG-HA; (B) N,P,K WITH THE ADDN. OF MO 0.81, OR ZN 2.5, OR B 1.66, OR MN 6.0 KG-HA; AND (C) GYPSUM AT 4 TON-HA. TRACE ELEMENTS INCREASED THE SUGAR CONTENT IN THE ROOTS. THE HIGHEST YIELD WAS ACHIEVED WITH N,P,K FERTILIZATION FOLLOWED BY GYPSUM TREATMENT. FACILITY: UKR. NAUCH. ISSLED. INST. ZEMLED., KIEV, USSR.

UNCLASSIFIED

USSR/Econ

TYUL'PANOV, S. , Professor, Leningrad State University,
MOTYLEV, V. ,
ABALKIN, L. , Professors, Moscow Institute of National
Economy im. G. Plekhanov,
RUDENKO, G. , Professor, Moscow State University,
DUBINSKIY, L. , Moscow State University,
DALIN, S. , Insitute of World Economics and International
Relations, AS, USSR,
DRAGILEV, M. , Professor, Moscow State University, and
BREGEL', E. , Professor, Moscow Economical Statistics
Institute, participated in an expanded meeting of the
problem council of the Ministry of Higher and Secondary
Specialized Education, RSFSR which considered Leninist
theory of imperialism and modern capitalism.

Mirovaya Ekonomika i Mezhdunarodnyye Otnosheniya, No. 8,
73, pp 140-142

(8)

USSR

UDC 539.216.22:538.114

RUDENKO, G. I., Moscow Power Institute

"Study of Nanosecond Reversal of Magnetization in Thin Magnetic Films to the Direction of the Axis of Difficult Magnetization"

Tomsk, Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, No 8(111), 1971,
pp 108-111

Abstract: 90° magnetization reversal of films with different static parameters and different impulse field values was investigated. Specimens with the composition 83% Ni and 17% Fe, deposited on glass sublayers under ordinary conditions, were 0.1 micron thick and 1 cm in diameter. The anisotropy field was 2.4 oersteds with a relative coercive force of 0.25-1.7. The field of dispersion of anisotropy was varied from 14 to 300 millioersteds. The remagnetization impulse had a rise time of 0.8 nanosecond. The time constant of the stroboscopic oscillograph was 0.3 nanosecond. Signals and trajectories of nanosecond magnetization reversal of permalloy films to the direction of the axis of difficult magnetization from the direction of residual magnetization relative to the axis of easy magnetization are presented. The variation in the effective quenching parameter during magnetization reversal was studied. 90° magnetization reversal differs from its 180° counterpart by 1/2

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RUDEKNO, G. I., Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, No 8(111), 1971, pp 108-111

the fact that the deviation of the trajectory from a circle occurs to a less extent, and a flat section is observed much less often in the plots of the effective quenching parameter as a function of the angle of turning or time lapsing since the beginning of magnetization reversal.

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Soviet Inventions Illustrated, Section I Chemical, Derwent, 3-98

238380 HEAT TREATMENT OF CONCRETE AND REINFORCED CONCRETE ARTICLES is carried out by means

of a.c. of main frequency during the vibrational formation of the articles. The temperature is rapidly increased to 90-100°C (instead of the conventional rate of 20°C/hr.), whereby the duration of the articles, the moulds are removed without delay, and the articles are further heated at the same temperature until the desired strength is reached. As electrodes, insulated parts of the forming machines or reinforcement elements are used. Compared with the known methods, this process is shortened by 2-4 hrs. The density of the articles is increased, because the vibrational formation is carried out at elevated temperatures. There is no temperature gradients, so that internal stresses do not develop. The removal of the mould elements is facilitated because of the formation of a vapour layer at the contact surfaces. 26.10.67. as 1194251/29-33. B.A.KRYLOV et alia. Institute of Concrete and Reinforced Concrete. (10.7.69.) Bul.9/20.2.69. Class 80a. Int.Cl. B28c.

19740001

AA0038801

AUTHORS: Krylov, B. A.; Li, A. I.; Malinina, L. A.;
Mironov, S. A.; Rudenko, I. F.; Folomeev, A. A.;
and Shchurov, Yu. I.

Nauchno - Issledovatel'skiy Institut Betona i Zhelezobetona

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RUDENKO, I. M., SPODYRYAK, N. T.

"Flow Thermodynamics for an Isothermal Stream of Water in Corrugated Pipe"

Probl. teploenerg. i prikl. teplofiz. Vyp. 6 (Problems of Thermal Power Engineering and Applied Thermophysics. Vyp. 6), Alma-Ata, Nauka Press, 1970, pp 133-143 (from RZh-Mekhanika, No 11, Nov 70, Abstract No 11B477)

Translation: This article contains a discussion of the results of an experimental study of the resistance of corrugated pipe during isothermal flow of water. The empirical functions relating the drag coefficient to the geometric parameters of the pipe and the Reynold's number R and describing the experimental results with an accuracy of $\pm 4\%$ are presented. The predominant effect on the drag coefficient comes from the parameter of relative curvature d/R : with an increase in this parameter the resistance increases; the angular parameter α has an effect only for small values of R . The aerodynamics of the flow in a corrugated pipe are investigated. It is established that the hydrodynamic flow conditions are

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RUDEKNO, I. M., et al, Probl. teploenerg. i prikl. teplofiz. Vyp. 6, Alma-Ata, Nauka Press, 1970, pp 133-143 (From RZh-Mekhanika, No 11, Nov 70, Abstract No 11B477)

exhibited in the characteristic of the velocity profile. Here, the function $\xi = f(R, d/R, \alpha)$ is explained well by the aerodynamic structure of the flow. The drag coefficient of corrugated pipe is higher with respect to absolute magnitude than the drag coefficient of straight pipe.

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USSR

UDC 576.858.5.095/.097

KOVALEVA, T. P., YURLOVA, T. I., BOLDASOV, V. K., LYSOV, V. V., RUDENKO, L. G., AKSENOV, O. A., and SELIVANOV, A. A., All Union Scientific Research Institute of Influenza, Ministry of Health USSR, Leningrad

"Biological Properties of Two Strains of Adenovirus Serotype 4"

Moscow, Voprosy Virusologii, No 6, Nov/Dec 71, pp 700-703

Abstract: A comparative study of normal and attenuated strains of adenovirus serotype 4 revealed a number of significant differences.. While at the optimum culture growth temperature of 37°C, both strains reproduce at the same rate, at 28°C the attenuated strain proliferates much faster and at 40°C much slower than the parent strain. While both strains are almost equally sensitive to human leukocytic interferon, the attenuated strain is significantly more sensitive to nonspecific thermolabile inhibitors, and has a much higher interferon-stimulating and interference activity and a much lower cytotoxic activity. After experimental inoculation of human subjects, both strains cause a rapid, fourfold increase in serum antibody concentration. However, the disease induced by the attenuated strain is considerably less severe and of shorter duration than that induced by the parent strain.

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UDC 612

RUDENKO, L. P., Institute of the Higher Nervous Activity and Neurophysiology
of the USSR Academy of Sciences, Moscow

"Conditioned Reflex Switching"

Moscow, Uspekhi Fiziologicheskikh Nauk, Vol 4, No 2, 1973, pp 7-25

Abstract: A survey is made of the published data on conditioned reflex switching and the adjacent problems of physiology and psychology closely related to this phenomenon. The problem of conditioned reflex switching as a topic of special experimental study was stated by E. A. Asratyan in 1936, and it has been systematically pursued for a number of years at the laboratory, he heads. Conditioned reflex switching, which arose on the basis of the simplest properties of unconditioned reflexes -- the capacity to switch depending on the initial functional background -- has, on the level of the higher animals and man, grown into the universal principle of higher nervous activity providing this activity with a dynamic nature, flexibility and precise correspondence to the reaction to the external situation and the dynamic requirements of the organism. A bibliography of 132 papers is included in the article, all of which are very briefly reviewed and assigned to various aspects of the stated problem. The survey of the literature on this topic developed primarily by psychologists indicates exceptionally high interest in the study of predisposition

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RUDENKO, L. P., Uspekhi Fiziologicheskikh Nauk, Vol 4, No 2, 1973, pp 7-25

reactions permitting the brain to prepare for the response best corresponding to the current situation and the internal requirements of the organism. However, there is considerable divergence of opinion among the various authors with respect to the nature of these reactions and their intimate physiological mechanisms. The most adequate and strictly scientific explanation of these processes were presented by E. A. Asratyan in his concept of tonic conditioned reflexes including not only switching mechanisms but also other complex forms of nervous activity and the physiological mechanisms of the so-called selection reactions, and so on. In spite of its specific nature, this form of activity is also reflex. The presence of tonic conditioned reflexes characterizes the higher nervous activity not only for developed switching but it is universal in this activity in general, constituting the physiological basis for the capacity of the brain for programming and predicting forthcoming events.

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RUDEKNO, L. P., Institute of Higher Nervous Activity, Academy of Sciences USSR
Moscow

"Preconditioning for Impending Activity in Animals"

Moscow, Voprosy Psikhologii, No 5, 1971, pp 47-57

Abstract: Phasic stimuli and response were coordinated with tonic stimuli and responses in dogs, after which modifications were introduced. A light signal was used as the phasic stimulus which announced either food or painful stimulation of the left front paw, which the dog could prevent by raising the affected paw about 10 cm. A fan was used as the tonic stimulus; when it was turned on, a light was flashed (phasic stimulus), followed by delivery of the painful stimulation; when it was turned off, the light signal was followed by delivery of food. Both the phasic response (raising the left paw or salivation) and the tonic response (shift of body weight to the other three paws and relaxation of the right front paw with cessation of action potentials in its extensor muscles in one case, and even distribution of body weight and glances at the food delivery window in the other case) were quickly learned. In the first modification, in which the painful stimulus was applied to the right front paw, the tonic response was relearned faster than the phasic

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RUDEKNO, L. P., Voprosy Psikhologii, No 5, 1971, pp 47-57

response. In the second and third modifications, in which different phasic stimuli -- either a sound which had no meaning or a sound which, due to previous conditioning, meant food only -- were used, there was no phasic defensive response even though the fan was on. In the fourth modification, in which the fan was replaced by a different continuous noise, there was no tonic defensive response. It is concluded that the tonic response is a true conditioned reflex (as is the phasic response) with a complete reflex arc, although very sensitive methods are required to demonstrate objectively its effector end. The function of the tonic reflex is to precondition, orient, or prepare the body for a subsequent, readily visible reaction. The tonic reflex is more flexible and reactive than the phasic reflex.

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GAL'CHINETSKIY, L. P., KOSHKIN, V. M., KUMAKOV, V. M., KULIK,
V. M., RUDENKO, M. I., RYABKA, P. M., ULMANIS, U. A., SHAKHOVTSOV,
V. I., and SHINDICH, V. L.

"Radiation Stability Effect in Semiconductors With Stoichiometric
Vacancies"

Leningrad, Fizika Tverdogo Tela, vol 14, No 2, 1972, pp 646-648

Abstract: Because such lattice defects as impurity atoms have no
effect on the electrical characteristics of semiconductors of the
A^{III}B^{VI} type, such as In₂Te₃, Ga₂Te₃, and Ga₂Se₃, the authors were
led to the assumption that irradiation of these crystals by high-
energy particles would have little effect on their electrical char-
acteristics as well. To test this assumption, they subjected
crystals of In₂Te₃ and Ga₂Te₃ to irradiation by gamma quanta, fast
electrons, and fast neutrons in a pulse reactor, as well as by
mixed reactor radiation. Tables of the characteristics of these
crystals before and after the irradiation are presented. The au-
thors of this brief communication thank V. S. Vavilov and V. L.
Vinetskiy for their helpful discussions of the results.

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RUDEKOK, M. I.

"Study of Blisters Forming on Thin Lead Sulfide Films"

Leningrad, Vestnik Leningradskogo Universiteta: Fizika-Khimiya, Jul-Sep 73,
pp 65-68

Abstract: Blisters have been found in thin lead sulfide films evaporated in vacuum. Their formation was assumed to be due to great mechanical stress. Electron microscopic studies of these blisters have shown that they are sections of the film which have been separated from the substrate. Photoelectromotive force generated in the blisters was studied by means of a thin light beam. The photoelectromotive force did not appear when the top of a blister was illuminated, but the illumination of opposite slopes of the blister resulted in different polarity of the photoelectromotive force.

The article includes three figures, two of which are photographs of the blisters and the other is two graphs showing the variation of the photoelectromotive force. There are nine references.

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UDC 557.1.074

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GAL'CHINETSKIY, L.P., KOSHEIKIN, V.M., KULACHOV, V.M., KULIK, V.N., RUDENKO, M.I.,
RYABKA, P.M., ULMANIS, U.A., SHALHOVTSOV, V.I.

"Study Of The Possibility Of Use Of Type In_2Te_3 Semiconductors As Detectors
Of Reactor Radiation"

V sb. Metrologiya neytron. izlucheniya na reaktorskikh i uskoritel'nykh (Metrology Of
Neutron Radiation At Reactors And Accelerators--Collection Of Works), Moscow,
1971, p 56 (from RZh: Elektronika i yeye primeneniye, No 2, Feb 72, Abstract
No 25275)

Translation: During irradiation of AIII₂BVI compounds of the In_2Te_3 type by
fast neutrons with fluxes up to $5 \times 10^{16} \text{ cm}^{-2}$, electrons with an energy of
100 Mev with fluxes up to 10^{19} cm^{-2} , and gamma quanta with an energy of 1.2
Mev with fluxes up to 10^{18} cm^{-2} , a marked radiation sensitivity is discovered.
An irreversible change of the electrophysical properties after irradiation is
not established. The possibility is studied of the use of these materials as
the basis for radiation-resistant detectors. A.M.

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UDC: 518.5:681.3.06

SERGEYEV, N. P., RUDENKO, M. N., MESHCHERYAKOV, B. K.

"On the Problem of Modeling One Inverse Boundary Value Problem"

Uch. zap. Penz. politekhn. in-t (Scientific Notes of the Penza Polytechnical Institute), 1970, vyp. 3, pp 29-34 (from RZh-Kibernetika, No 7, Jul 71, Abstract No 7V756)

[No abstract]